ABSTRACT

Methods for increasing the elimination half-life of key metabolites such as d4T by administering an aryl phosphate derivative of d4T having an electron withdrawing substituent on the aryl group and an amino acid substituent on the phosphate group are described. A preferred aryl phosphate derivative of d4T is HI-113 (d4T-5'-[*p*-bromophenyl methoxyalaninyl phosphate]). The administration of HI-113 results in more prolonged systemic exposure to the key metabolites, Ala-d4T-MP and d4T, than administration of an equimolar dose of either metabolite. Each metabolite has a significantly longer elimination half life when formed *in vivo* from the administration of HI-113 than when the metabolite is administered directly.